Emergency Medical Services Inter-Facility Transport

Planning Group

January 31, 2002

Summary of Recommendations

National Highway Traffic Safety Administration (NHTSA)
Health Resources and Services Administration

Background and Purpose

The purpose of the Emergency Medical Services Inter-Facility Transport planning group was to consider the issues currently confronting EMS organizations performing inter-facility transports and determine whether national consensus guidelines would be useful to assist EMS systems in addressing these challenges.

The goals of the planning group were to:

- Determine whether national consensus guidelines for inter-facility transport would be useful.
- Identify those aspects of inter-facility transport where consensus guidelines would be feasible and most beneficial.

Planning Group Participants

Emergency medical services (EMS) professionals representing the various components of EMS systems involved with inter-facility transport were invited to participate in a planning group sponsored by the National Highway Traffic Safety Administration (NHTSA) and the Emergency Medical Services for Children Program (EMSC) of the Health Services Resources Administration. This planning group was organized in response to requests by EMS organizations that are facing increased clinical, financial, and institutional issues relating to inter-facility patient transport. A directory of participants is provided as Appendix A.

Overall Consideration: Would Consensus Guidelines Be Useful?

The planning group began with a general discussion of current practice and trends in inter-facility transport. The group identified several core inter-facility transport issues where national consensus guidelines could facilitate planning or problem solving.

Trends in inter-facility transport:

Patient transfer between facilities or between a facility and a specialty care resource is increasingly common. Often, EMS personnel are the most appropriate providers of inter-facility transport. However, in many cases commercial services or other providers are filling this need. Regardless of provider, inter-facility transport requires unique skills and capabilities both in clinical care and in administrative and operational coordination. Consensus guidance concerning methods for delivering and administering these services would assist inter-facility providers, hospitals, and other health care facilities in planning and developing inter-facility transport systems.

Political and institutional issues:

The group pointed out that inter-facility transport decisions are frequently made by personnel who lack specialized knowledge in this area, and are often based on subjective, administrative, or regulatory factors rather than on the objective needs of patient care. Inter-facility transport staffing alternatives and patient destination options are examples of decisions that should be made by individuals with relevant training and based on clinical conditions rather than on less appropriate parameters. Consensus guidelines for such decisions could lead to more appropriate allocation of resources and improved mutual understanding.

Patient Safety:

Ensuring the safety of patients is essential and should remain the priority during inter-facility transport. The recent Institute of Medicine report addressing patient safety and subsequent initiatives by medical organizations have raised awareness of the need to ensure patient safety in all aspects of care, including inter-facility transport. Patient safety initiatives by hospitals are also contributing to the increase in inter-facility transports. Hospitals are looking for ways to provide higher levels of care for patients, including the use of modern medical technologies. Hospitals unable to provide these services are increasingly transferring critical patients to facilities that have these capabilities.

The group expressed concern that inter-facility transport providers are often required to provide care at the limits of their capabilities. Coordination between hospitals and inter-facility clinical providers is essential before transports are initiated to ensure that patient care is provided at an appropriate level. In addition to matching provider skills with patient needs, there are issues concerning equipment standards for inter-facility transports, such as specialized neonatal equipment. National consensus would be useful for framing these expectations.

Aspects of Inter-Facility Transport Where Consensus is Needed

After determining that national consensus guidelines would be useful for State and local system development purposes, the planning group recommended a number of specific issues that are particularly amenable to this approach.

Definitions:

Participants determined that common definitions of terms used in inter-facility transport are needed. We currently lack common definitions for categories of patients, providers, levels of care, or procedures used in inter-facility transport. There are different standards for stable and unstable patients, making it difficult to assign appropriate personnel and identify potential procedures that might be needed during transport. The group also noted that the lack of common definitions complicates reimbursement processes. Consensus definitions are especially needed for widely used terms, such as "critical care". For consistency, definitions should be service based, rather than specific to a vehicle or provider type.

Cost, reimbursement and funding for services:

Community needs assessments and financial studies are needed to align resources with requirements. National consensus is needed on methods for fair and equitable distribution of the "readiness" costs associated with maintaining inter-facility transport systems. The group recognized that reimbursements often do not cover the costs involved with maintaining capability for inter-facility transport, particularly in rural areas.

Integration of transport services into existing regional health care systems:

A central recommendation of the1996 consensus strategic planning document, the *EMS Agenda for the Future,* is to improve the integration of EMS services within community health care systems. The Agenda points out a range of efficiency and effectiveness benefits that result from enhanced linkage and coordination. The planning group felt that this type of integration is just as essential for inter-facility transport.

In some areas, inter-facility transport services have been successfully integrated into regional healthcare systems resulting in improved services and reduced costs. The inter-facility transport service should serve as a nexus linking the resources and meeting the needs of the various stakeholders involved in the care of patients requiring transport. Additionally, the inter-facility transport provider can serve as the focal point for policy making, management, and administration. Consensus is needed among stakeholders to identify best practices for creating community linkages and maintaining coordination between inter-facility transport providers and hospitals, pre-hospital care providers, and State and Federal government agencies.

Research base:

Just as in the area of pre-hospital care, there has been little research to develop a knowledge base related to inter-facility transport. National consensus is needed to determine priority research needs, address legal challenges associated with out-of-hospital care research, and develop collaborative inter-facility transport research networks. Data collection systems are needed to monitor patient transport and provide information to evaluate the potential benefits of technological developments such as telemedicine.

Provider education:

Inter-facility transport requires a unique set of skills, distinct from the traditional training of most hospital-based or prehospital providers. It is essential that personnel utilized to provide care during inter-facility transports be properly trained, familiar with the unique demands of providing care during ground or air transport, and prepared to handle the variety of patient contingencies that may arise during transport.

The planning group recommends that consensus educational guidelines be developed to outline training required to prepare hospital and prehospital personnel to provide appropriate care during inter-facility transport. A practice analysis is needed to identify specific educational needs. Analyses of current provider training will be required to identify knowledge gaps and steer the development of bridging curricula. Additional education will be needed to prepare all traditional providers, whether hospital or prehospital based, for inter-facility transport care. However the specific focus of this additional education may vary depending on the provider's existing knowledge base.

Liability issues:

The planning group noted that while the burden of liability associated with inter-facility transports has traditionally been on hospitals, inter-facility providers, especially those not associated with the hospital, need to examine liability issues as well. A variety of medical and legal issues, such as Emergency Medical Treatment and Active Labor Act (EMTALA) regulations, have created uncertainty surrounding inter-facility transport issues. Consensus position statements and standards of practice would reduce inconsistencies in legal interpretations and facilitate efforts of system administrators and inter-facility transport providers to ensure that reasonable care is being exercised in system design, protocols, and operations.

Medical direction:

Just as with traditional EMS services, effective medical direction is essential to ensure the quality of patient care during inter-facility transport. Medical direction serves a critical quality control function over every aspect of patient care and system operation, including the appropriateness of clinical protocols, adequacy of provider education, selection of equipment, and prevention of medical errors. This direction is typically provided by a physician, either directly by observation or communication with care providers, or indirectly through the establishment of system performance standards and continuous quality improvement.

However, while guidelines have been established to assist with medical direction of traditional EMS services, no such guidance is available to advise physicians on how to provide effective

medical direction of inter-facility transports. Consensus guidance for medical direction of inter-facility transport would encourage consistent practice and promote widespread adoption of this function. Many aspects of EMS medical direction apply to inter-facility transport. However, the unique characteristics of inter-facility transport require that additional guidance be established that would address issues specific to inter-facility transport.

Human resources and staffing:

To provide quality care, systems must match resources with patient needs. The scope of care for inter-facility transport needs to be defined, and levels of providers identified. Provider professional credentials applicable to hospital or prehospital care often do not adapt well to inter-facility transport. The selection of personnel, equipment, and credentials should be appropriate for the care needed, rather than based upon convenience or personnel availability. The specific level of resources needed will vary according to patient condition, transport configuration, and other factors. Consensus staffing parameters would assist system designers and administrators with planning to ensure reasonable alignment of resources with patient needs.

Legislation and regulation:

There are a number of significant legislative and regulatory issues affecting inter-facility transport. The planning group pointed out that there is much inter-and intra-state variability in regulations concerning inter-facility transports. In some States, a ground transport nurse is not allowed by regulation to continue with a patient on a helicopter transport, while in others this practice would violate patient abandonment regulations. Some States are very prescriptive while others do not address inter-facility transport at all. Varying regional standards create uncertainty about the scope of care available in specific areas. Without State guidance, individual physicians often determine the standards of practice. Some EMS agencies have determined that they need a critical care inter-facility transport component and have established required training programs for EMS services performing these services. Consensus model legislation would be useful to remove legal and regulatory barriers to quality and cost-effective care during inter-facility transports.

Best Practice Models:

The planning group recommended that a number of models of inter-facility transport be identified, documented, and disseminated. The group believes that while all inter-facility transport systems need to incorporate certain characteristics, such as integration within the health care system, effective medical direction, and appropriate staffing, the specific design of any single system will be dependent on local conditions. System administrators will need to work with national consensus guidelines, consult with local stakeholders, assess local resources, research relevant legislation and regulation, and design a system that meets local needs. A selection of proven best practice models would assist system designers in establishing a system that is built upon experience but adapted to local conditions.

Conclusions:

The planning group saw significant benefit in pursuing consensus on a variety of aspects of inter-facility transport. Development of consensus guidance for the broader EMS community was recommended as an effective means for promoting consistent high quality patient care, while allowing for variation to accommodate unique local needs.

The group recommended that consensus guidelines be pursued by an interdisciplinary panel of experts representing the full range of inter-facility transport stakeholders. When guidelines are drafted, they should be widely circulated for comment and revision with the goal of building the broad nationwide consensus needed for wholesale system upgrade.

The recommendations in this report should be used as a starting place for these deliberations, with the goal of creating useful guidance for system design that meets the needs of all stakeholders.

The planning group recommends that the consensus effort include representation of the following types of providers and organizations:

Air medical flight crew organizations
Air medical physicians
Ambulance associations
County and city health officials
Critical care medicine
EMS directors and administrators
Emergency nurses
EMS accreditation organizations
Emergency physicians
EMS training and education organizations
Federal healthcare agencies
Hospital associations
Managed care organizations
Pediatric medicine
Physician assistants
Physician professional organizations
Respiratory therapists
Rural health providers
Trauma surgeons

Appendix A:

EMS Planning Group Participants

- Robert Bass, M.D., Director, Maryland Emergency Medical Services
- W. Russell Crowley, B.S., NREMT-P, State Training Coordinator, Alabama Emergency Medical Services Division
- Robert M. Domeier, M.D., National Association of Emergency Medical Services Physicians
- CAPT Arthur J. French, M.D., FACEP, NHTSA EMS Division
- Mark E. King, Director, West Virginia Office of Emergency Medical Services
- Mr. Kurt Krumperman, American Ambulance Association
- Jeff Michael, EdD, NHTSA EMS Division
- Mark Postma, Executive Director – MEDIC EMS
- Ms. Kathy Robinson, R.N., Emergency Nurses Association
- Bob Waddell, EMT-P, HRSA EMSC Program
- Suzzane Wedel, M.D., Medical Director, Boston MedFlight
- Charlotte Yeh, M.D. - Medical Director, NHIC